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(54) Title: **BACE455, AN ALTERNATIVE SPLICE VARIANT OF THE HUMAN BETA-SECRETASE**

BACE455 Mock BACE455 BACE455
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(57) **Abstract:** The present inven-
tion relates generally to the fields
of genetics, biochemistry, medicinal
chemistry and medicine. The
present invention more particularly
discloses the identification of a
human gene variant involved in
neuropathological conditions,
and methods for the diagnosis,
prevention and treatment of such
diseases and related disorders,
as well as for the screening of

therapeutically active drugs. The present invention relates to catalytically active beta-secretase (Memapsin2, BACE) variants, and
nucleic acids encoding them. The invention is useful in the identification of agents that inhibit the activity of a particular BACE
isoform and thus agents and therapies affecting the genesis, development or progression of neuropathological conditions, including
Alzheimer's disease and dementia.